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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,336	02/23/2004	Kevin Killeen	10010218-2	8788

22878 7590 06/15/2004

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EXAMINER

FRISTOE JR, JOHN K

ART UNIT	PAPER NUMBER
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3754

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/785,336

Applicant(s)

KILLEEN ET AL.

Examiner

John K. Fristoe Jr.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/23/2004
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 2/23/2004 is acknowledged by the examiner.

### ***Election/Restrictions***

2. This application contains claims directed to the following patentably distinct species of the claimed invention: Species A directed to figures 2A-2E, Species B directed to figures 3A-3C and 5A-5C, and Species C directed to figures 4A-4E.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-7 and 10-18 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

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examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. During a telephone conversation with Mike Beck on 6/8/2004 a provisional election was made without traverse to prosecute the Species C, claims 1-8 and 10-20. Affirmation of this election must be made by applicant in replying to this Office action. Claim 9 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected species.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-5, 8, 10, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,550,497 (Thiele et al.). Thiele et al. disclose a device for controlling fluids comprising a cover plate (1) having substantially planar contact surfaces (fig. 2), a plurality of fluid transporting features (8, 10) having a substantially constant cross section (fig. 2), a substrate (6) having a substantially planar contact surface (fig. 2) and having a fluid transporting feature (11) being a conduit having a substantially constant cross section (fig. 2), wherein the contact surfaces are positioned in slidable and fluid contact to allow for controllable formation of a plurality of different flow paths (fig. 1, fig. 3) upon alignment of the substrate fluid transporting feature in succession, the cover plate (1) is arranged over (fig. 2) the substrate (6), the substrate (6) is arranged over (fig. 2) the cover plate (1), wherein the contact surfaces (fig. 2)

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are rotationally slidable with respect to each other, and wherein each flow path (fig. 3, fig. 4) has a different length.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No.

5,251,670 (Bates). Bates discloses a device for controlling fluid flow comprising a cover plate (22) having a substantially planar contact surface and a plurality of fluid transporting features (24, 26), a substrate (50) having a substantially planar contact surface and a plurality of fluid transporting features (figure 1, adjacent hole 48 in element 50), wherein the contact surfaces are positioned in slidable and fluid tight contact to allow controllable formation of different flow paths (fig. 5, figure 6), and further wherein each flow path s formed as a result of a different alignment of the fluid-transporting features.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,550,497 (Thiele et al.) in view of engineering expedient. Thiele et al. discloses the above described valve with multiple flow paths with the contact surfaces being rotationally slidable

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with respect to one another (fig. 1-4) but lacks the valve being made with a conduit having a cross section of a certain size. One of ordinary skill in the art of gas chromatography would establish a particular size conduit area and a particular pressure threshold as a routine step in setting up the equipment for different processes. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the valve with multiple flow paths of Thiele et al. by manufacturing it with a conduit cross-section of at the most  $1 \text{ mm}^2$  as an engineering expedient in order to use a conduit size that is suitable for a particular process.

10. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,550,497 (Thiele et al.) in view of U.S. Pat. No. 4,988,626 (Ajot et al.). Thiele et al. discloses the above described valve with multiple flow paths with the contact surfaces being rotationally slidable with respect to one another (fig. 1-4) but lacks the valve being connected to a separation unit that can carry out chromatography. Ajot et al. teaches a device for controlling fluids communicating with an integral separation unit that is a mass spectrometer that carries out chromatography (col. 3, lines 12-16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device for controlling fluids of Thiele et al. by letting the device communicate with a separation unit to carry out chromatography as taught by Ajot et al. in order to separate fluids from a main fluid source.

Note regarding claim 13, one of ordinary skill in the valve art would have made the integral separation unit capable of being detached from the device since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

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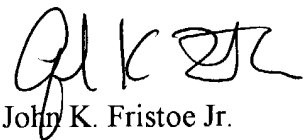
11. Claims 16, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,550,497 (Thiele et al.) in view of U.S. Pat. No. 6,613,560 (Tso et al.). Thiele et al. discloses the above described valve with multiple flow paths with the contact surfaces being rotationally slidable with respect to one another (fig. 1-4) but lacks the valve being made of a biofouling-resistant polymer. Tso et al. teach a device for controlling liquids that is made of a biofouling-resistant polymer (col. 3, lines 54-56). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device for controlling fluids of Thiele et al. by making the valve from a biofouling-resistant material as taught by Tso et al. in order to not contaminate the fluid within the valve.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Fristoe Jr. whose telephone number is (703) 308-1437. The examiner can normally be reached on Monday-Friday, 7: 00 a.m-4: 30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Louis G. Mancene can be reached on (703) 308-2696. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John K. Fristoe Jr.  
Examiner  
Art Unit 3754

JKF



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6/11/04